

# → Types of Database

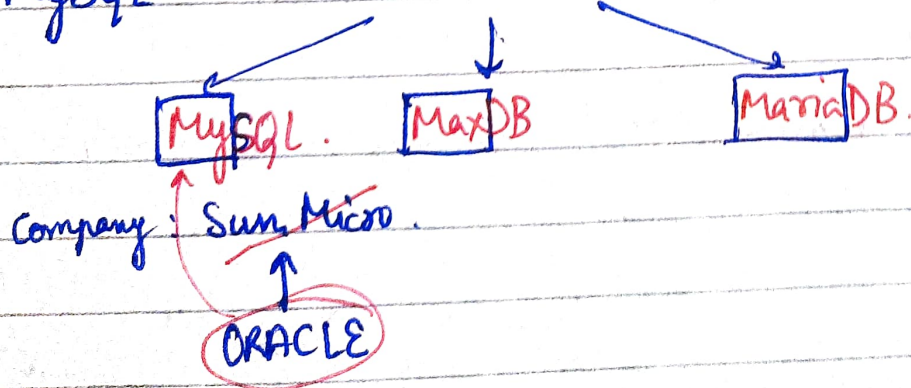
EP-12

- ① Relational DB - MySQL, PostgreSQL.
- ② NoSql DB - MongoDB
- ③ In memory DB - Redis
- ④ Distributed SQL DB - Cockroach DB
- ⑤ Time series DB - Influx DB.
- ⑥ OO DB - dbto.
- ⑦ Graph DB. - Neo4j
- ⑧ Hierarchical DB - IBM IMS
- ⑨ Network DB - IDMS
- ⑩ Cloud DB - Amazon RDS }

≠ RDBMS (MySQL, PostgreSQL).

\* 18<sup>th</sup> - EF-Codd → 12 rules for a DB to be RDB. (0-12)

\* MySQL - Micheal Widenius. named after his 3 daughter



# # NoSQL

\* Document ~~DB~~ DB

\* Key Value DB

\* Graph DB

\* Multimodel DB

\* MongoDB

↳ 10gen → MongoDB Inc.

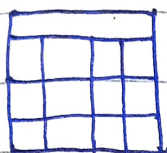
Why?

↳ flexible

↳ very compatible with JS

↳ not rigid.

## SQL



User Table

p-key

ID	FN	LN
1	Vansh	kumar
2	alan	am

## Not only SQL

## NO SQL

{  
 "id": 1,  
 "fn": "Vansh",  
 "ln": "kumar",  
 "hobbies": ["scrapping", "reading", "working"],  
}

{

"id": 1;

"fn": "Vansh",

"ln": "kumar",

"hobbies": ["scrapping",

"reading", "working"]

}

\* stored in tables, columns & rows.

\* Queries are used to enter data.

\* joins to connect 2 tables

\* structure data.

\* fixed schema

\* Structured Query language

\* tough vertical scaling

\* relations → joins + keys.

\* Read-heavy apps,  
transaction overload.

Ex. BANKING APPS

\* Collection, fields, document.

\* No need for joins

\* No need for data normalization

\* JSON, object of JS, document.

\* Unstructured data

\* flexible schema

\* easily horiz & vert. scaled

\* Nested data (relations)

\* Real time, big data etc.

Ex: Real time dashboards,  
social media etc.